(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property **Organization** International Bureau



532773

(43) International Publication Date 21 May 2004 (21.05.2004)

PCT

(10) International Publication Number WO 2004/042933 A1

(51) International Patent Classification7: H04N 7/30

(21) International Application Number:

PCT/SG2002/000248

- (22) International Filing Date: 24 October 2002 (24.10.2002)
- (25) Filing Language:

English

(26) Publication Language:

English

- (71) Applicant (for all designated States except US): LAB-ORATORIES FOR INFORMATION TECHNOLOGY [SG/SG]; 21 Heng Mui Keng Terrace, Singapore 119613 (SG).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): YU, Rongshan [CN/SG]; Block 168, Boon Lay Drive, #07-621, Singapore 640168 (SG). RAHARDJA, Susanto [IN/SG]; 10A Braddell Hill, #22-02, Singapore 579720 (SG). LIN, Xiao [SG/SG]; Block 117, Bukit Batok West Avenue 6, #18-238, Singapore 650117 (SG).

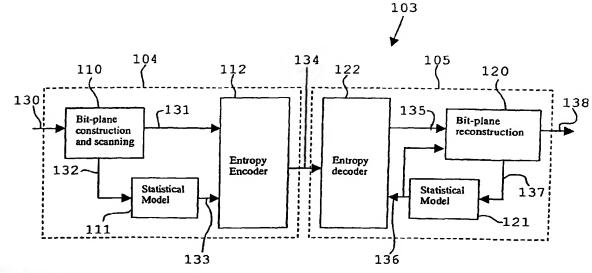
- H03M 7/26, (74) Agent: BOGSCH, Adam, Attila; Viering, Jentschura & Partner, 210 Middle Road, #10-01 IOI Plaza, Singapore 188994 (SG).
 - (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG. SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
 - (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A METHOD AND A DEVICE FOR PROCESSING BIT SYMBOLS GENERATED BY A DATA SOURCE; A COM-PUTER READABLE MEDIUM; A COMPUTER PROGRAM ELEMENT



(57) Abstracts A method for processing bit symbols generated by a data source, in particular a video, still image or audio source, comprising the following steps of constructing a plurality of bit-planes from the data source, each bit-plane comprising a plurality of bit-plane symbols; scanning the bit-plane symbols of each bit-plane to generate a binary string of bit-plane symbols; and encoding the binary string of the bit-plane symbols using a statistical model, wherein the statistical model is based on statistical properties of a Laplacian probability distribution function which characterizes the data source.



2004/042933 A1